United Nations

FCCC/IDR.6/ISL

Framework Convention on Climate Change

Distr.: General
23 February 2015

English only

Report of the technical review of the sixth national communication of Iceland

Parties included in Annex I to the Convention are requested, in accordance with decision 9/CP.16, to submit a sixth national communication to the secretariat by 1 January 2014. In accordance with decision 7/CMP.8, Parties included in Annex I to the Convention that are also Parties to the Kyoto Protocol shall include in their sixth national communication supplementary information under Article 7, paragraph 2, of the Kyoto Protocol. In accordance with decision 15/CMP.1, these Parties shall start reporting the information under Article 7, paragraph 1, of the Kyoto Protocol with the inventory submission due under the Convention for the first year of the commitment period. This includes supplementary information on the minimization of adverse impacts in accordance with Article 3, paragraph 14, of the Kyoto Protocol.

This report presents the results of the technical review of the sixth national communication and supplementary information under the Kyoto Protocol of Iceland conducted by an expert review team in accordance with the "Guidelines for the technical review of information reported under the Convention related to greenhouse gas inventories, biennial reports and national communications by Parties included in Annex I to the Convention" and the "Guidelines for review under Article 8 of the Kyoto Protocol".

GE.15-03397 (E)

1503397

Please recycle

Contents

		Paragraphs	*Page*
I.	Introduction and summary	1–12	3
	A. Introduction	1–6	3
	B. Summary	7–12	4
II.	Technical review of the reported information in the national communication and supplementary information under the Kyoto Protocol	13–157	6
	A. Information on greenhouse gas emissions and national circumstances relevant to greenhouse gas emissions and removals, including other elements related to the Kyoto Protocol	13–40	6
	B. Policies and measures, including those in accordance with Article 2 of the Kyoto Protocol	41–97	11
	C. Projections and the total effect of policies and measures, including information on supplementarity relating to the mechanisms pursuant to Articles 6, 12 and 17 of the Kyoto Protocol	98–127	20
	D. Provision of financial resources and technology transfer to developing country Parties, including information under Articles 10 and 11 of the Kyoto Protocol	128–142	26
	E. Vulnerability assessment, climate change impacts and adaptation measures	143–147	29
	F. Research and systematic observation	148–153	31
	G. Education, training and public awareness	154–157	32
III.	Summary of reviewed supplementary information under the Kyoto Protocol	158–161	32
	A. Overview of supplementary information under Article 7, paragraph 2, of the Kyoto Protocol	158–159	32
	B. Minimization of adverse impacts in accordance with Article 3, paragraph 14, of the Kyoto Protocol	160–161	33
IV.	Conclusions and recommendations	162–176	33
V.	Questions of implementation	177	36
Annex			
	Documents and information used during the review		37

I. Introduction and summary

A. Introduction

1. For Iceland, the Convention entered into force on 21 March 1994 and the Kyoto Protocol on 16 February 2005. Under the Convention, Iceland made a commitment to contribute to the European Union (EU) quantified economy-wide emission reduction target jointly with all EU member States to reduce the greenhouse gas (GHG) emissions of the EU by 20 per cent by 2020 below the 1990 level.

2. Under the Kyoto Protocol, Iceland committed itself to limiting the growth in its GHG emissions to 10 per cent in relation to the base year[1] level during the first commitment period, from 2008 to 2012. In implementing this target, Iceland availed itself of the provisions of decision 14/CP.7 on the impacts of single projects on emissions in the commitment period (see para. 110 below). For the second commitment period of the Kyoto Protocol, from 2013 to 2020, Iceland committed itself jointly with all EU member States to reduce the GHG emissions of the EU by 20 per cent by 2020 below the base year level.[2]

3. This report covers the in-country technical review of the sixth national communication (NC6) of Iceland, coordinated by the secretariat, in accordance with the "Guidelines for the technical review of information reported under the Convention related to greenhouse gas inventories, biennial reports and national communications by Parties included in Annex I to the Convention" (decision 23/CP.19) and the "Guidelines for review under Article 8 of the Kyoto Protocol" (decision 22/CMP.1).

4. The review took place from 25 to 30 August 2014 in Reykjavik, Iceland, and was conducted by the following team of nominated experts from the UNFCCC roster of experts: Mr. Xiang Gao (China), Ms. Maria Gutiérrez (Mexico), Ms. Pia Paola Huber (Austria) and Mr. Dylan Muggeridge (New Zealand). Ms. Gutiérrez and Ms. Huber were the lead reviewers. The review was coordinated by Ms. Ruta Bubniene (secretariat).

5. During the review, the expert review team (ERT) reviewed each section of the NC6. The ERT also reviewed the supplementary information provided by Iceland as a part of the NC6 in accordance with Article 7, paragraph 2, of the Kyoto Protocol. In addition, the ERT reviewed the information on the minimization of adverse impacts in accordance with Article 3, paragraph 14, of the Kyoto Protocol, which was provided by Iceland in its 2013 annual submission and previous submissions and elaborated further in its 2014 annual submission under Article 7, paragraph 1, of the Kyoto Protocol.

6. In accordance with decisions 23/CP.19 and 22/CMP.1, a draft version of this report was communicated to the Government of Iceland, which provided comments that were considered and incorporated, as appropriate, into this final version of the report.

---

[1] "Base year" refers to the base year under the Kyoto Protocol, which is 1990 for all gases. The base year emissions include emissions from sectors/source categories listed in Annex A to the Kyoto Protocol.

[2] A political statement on fulfilling the target for the second commitment period of the Kyoto Protocol by the 28 member States (including the EU-15 and Bulgaria, Croatia, Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia, and Slovenia) jointly with Iceland is included in paragraph 45 of the report on the eighth session of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol contained in document FCCC/KP/CMP/2012/13.

B. Summary

7. The ERT conducted a technical review of the information reported in the NC6 of Iceland in accordance with the "Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part II: UNFCCC reporting guidelines on national communications" (hereinafter referred to as the UNFCCC reporting guidelines on NCs). As required by decision 15/CMP.1, supplementary information required under Article 7, paragraph 2, of the Kyoto Protocol[3] is provided in the NC6 with a few exceptions (see para. 159 below). The supplementary information on the minimization of adverse impacts referred to in paragraph 5 above is complete and transparent.

8. Iceland considered most of the recommendations provided in the report of the in-depth review of the fifth national communication (NC5) of Iceland.[4] The ERT commended Iceland for its improved reporting. During the review, Iceland provided further relevant information, in particular with regard to policies and measures (PaMs), projections, financial support, and impacts and adaptation.

1. Completeness and transparency of reporting

9. Gaps and issues related to the reported information identified by the ERT are presented in table 1 below.

2. Timeliness

10. The NC6 was submitted on 7 March 2014, after the deadline of 1 January 2014 mandated by decision 9/CP.16. As the NC6 was not submitted within six weeks after the due date (15 February 2014), the delay was brought to the attention of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP) and the Compliance Committee and made public. The ERT noted with great concern the recurring delay in the submission of the Party's national communications (NCs) and recommends that Iceland improve the timeliness of submission of NCs and submit its seventh NC by 1 January 2018.

3. Adherence to the reporting guidelines

11. The information reported by Iceland in its NC6 is mostly in adherence with the UNFCCC reporting guidelines on NCs as per decision 4/CP.5 (see table 1 below).

12. A few mistakes in the NC6 were noted by the ERT (see para. 109 below). The ERT encourages Iceland to improve the accuracy of its reporting and double its efforts regarding quality assurance in the preparation of its next NC.

[3] Decision 15/CMP.1, annex, chapter II.
[4] FCCC/IDR.5/ISL.

Table 1
Assessment of completeness and transparency issues of reported information in the sixth national communication of Iceland[a]

Sections of national communication	*Completeness*	*Transparency*	*Reference to paragraphs*	*Supplementary information under the Kyoto Protocol*	*Completeness*	*Transparency*	*Reference to paragraphs*
Executive summary	Complete	Transparent		National systems	Mostly complete	Transparent	27, 30
National circumstances	Complete	Transparent		National registries	Complete	Transparent	
Greenhouse gas inventory	Complete	Transparent		Supplementarity relating to the mechanisms pursuant to Articles 6, 12 and 17	Not complete	Transparent	126, 127
Policies and measures (PaMs)	Complete	Mostly transparent	43, 44	PaMs in accordance with Article 2	Mostly complete	Transparent	93, 94, 96,
Projections and total effect of PaMs	Mostly complete	Partially transparent	100, 101	Domestic and regional programmes and/or arrangements and procedures	Complete	Transparent	
Vulnerability assessment, climate change impacts and adaptation measures	Partially complete	Mostly transparent	143, 147	Information under Article 10	Complete	Transparent	
Financial resources and transfer of technology	Mostly complete	Mostly transparent	129, 131, 139	Financial resources	Mostly complete	Mostly transparent	129, 131
Research and systematic observation	Complete	Transparent		Minimization of adverse impacts in accordance with Article 3, paragraph 14	Complete	Transparent	
Education, training and public awareness	Complete	Transparent					

[a] A list of recommendations pertaining to the completeness and transparency issues identified in this table is included in the chapter on conclusions and recommendations.

II. Technical review of the reported information in the national communication and supplementary information under the Kyoto Protocol

A. Information on greenhouse gas emissions and national circumstances relevant to greenhouse gas emissions and removals, including other elements related to the Kyoto Protocol

1. Information on relevant national circumstances

13. In its NC6, Iceland has provided a detailed description of its national circumstances, including government structure, climatic characteristics and the development of key economic sectors. Iceland has a unique emission profile, given the abundant availability of renewable energy sources (RES) (mainly hydropower and geothermal power), which are used for the production of heat and electricity. This wide availability of renewable energy is also capitalized upon by energy-intensive industries, in particular for the production of non-ferrous metals, which account for more than three quarters of total electricity consumption in Iceland.

14. The proportional impact of these industries on Iceland's emissions was deemed to justify UNFCCC decision 14/CP.7 on the impacts of single projects on emissions, which allows emissions from industrial processes fulfilling certain conditions to be reported separately and excluded from national totals (see para. 110 below). Further information on the review of the institutional and legislative arrangements for the coordination and implementation of PaMs is provided in chapter II.B below.

15. During the review, Iceland provided additional information on its national circumstances, elaborating on the framework legislation and key policy documents on climate change. In particular, the ERT learned more about Iceland's arrangement with the EU to jointly fulfil the EU 2020 target and comply with its obligations under the Kyoto Protocol for the second commitment period.[5] The details of this arrangement had not been finalized at the time of the review. To enhance transparency, the ERT encourages Iceland to include in the next NC more information on the conditions of its partnership with the EU.

16. The ERT noted that during the period 1990–2012, Iceland's population and gross domestic product (GDP) increased by 23.1 per cent and 66.2 per cent, respectively, while GHG emissions per GDP decreased by 24.0 per cent and GHG emissions per capita increased by 35.0 per cent.

17. Table 2 illustrates the national circumstances of Iceland by providing some indicators relevant to GHG emissions and removals.

[5] The political statement thereon is included in paragraph 45 of the report of the eighth session of the CMP contained in document FCCC/KP/CMP/2012/13.

Table 2
Indicators relevant to greenhouse gas emissions and removals for Iceland

	1990	*2000*	*2005*	*2010*	*2012*	*Change 1990–2012 (%)*	*Change 2011–2012 (%)*
Population (million)	0.26	0.28	0.30	0.32	0.32	23.1	0.0
GDP (2005 USD billion using PPP)	6.53	8.40	10.35	10.42	10.85	66.2	1.5
TPES (Mtoe)	2.09	3.10	3.48	5.37	5.69	172.2	–0.7
GHG emissions without LULUCF (kt CO_2 eq)	3 538.08	3 902.65	3 859.26	4 646.16	4 467.73	26.3	0.6
GHG emissions with LULUCF (kt CO_2 eq)	4 713.14	4 919.13	4 765.22	4 646.16	5 173.87	9.8	–0.2
GDP per capita (2005 USD thousand using PPP)	25.12	30.00	34.50	32.56	33.91	35.0	1.5
TPES per capita (toe)	8.19	11.03	11.76	16.89	17.74	116.6	5.1
GHG emissions per capita (kg CO_2 eq)	13 607.99	13 938.03	12 864.20	14 519.25	13 961.66	2.6	0.6
GHG emissions per GDP unit (kg CO_2 eq per 2005 USD using PPP)	541.82	464.60	372.88	445.89	411.77	–24.0	–0.9

Sources: (1) GHG emissions data: Iceland's 2014 GHG inventory submission, version 1.4, submitted on 15 May 2014, not reviewed; (2) Population, GDP and TPES data: International Energy Agency.

Note: The ratios per capita and per GDP unit are calculated relative to GHG emissions without LULUCF; the ratios are calculated using the exact (not rounded) values and may therefore differ from a ratio calculated with the rounded numbers provided in the table.

Abbreviations: GDP = gross domestic product, GHG = greenhouse gas, LULUCF = land use, land-use change and forestry, PPP = purchasing power parity, TPES = total primary energy supply.

2. Information on the greenhouse gas inventory, emissions and trends

18. In its NC6, Iceland has provided a summary of information on GHG emission trends for the period 1990–2011. This information is fully consistent with the 2013 national GHG inventory submission. Summary tables, including trend tables for emissions in carbon dioxide equivalent (CO_2 eq) (given in the common reporting format (CRF) tables), are provided in an annex to the NC6. During the review, the ERT took note of the 2014 annual submission. The relevant information therein is reflected in this report.

19. Total GHG emissions[6] excluding emissions and removals from land use, land-use change and forestry (LULUCF) increased by 26.3 per cent between 1990 and 2012, whereas total GHG emissions including net emissions or removals from LULUCF increased by 9.8 per cent over the same period. In the same period, the Icelandic population grew by 23.1 per cent. Total emissions show a slight decrease between 1990 and 1994 and an increase between 1995 and 1999 following economic growth in Iceland. One of the main drivers behind the increased emissions since 1990 has been the expansion of the metal production sector; in 1996 a first aluminium plant began operation and in 1998 a second aluminium plant started operation.

20. An emissions plateau is observed between 2000 and 2005 because the overall increasing trend of GHG emissions was counteracted to some extent by the decreased emissions of perfluorocarbons (PFCs), caused by improved technology and process control

[6] In this report, the term "total GHG emissions" refers to the aggregated national GHG emissions expressed in terms of CO_2 eq excluding LULUCF, unless otherwise specified.

in the aluminium industry. Between 2005 and 2008, total GHG emissions without LULUCF increased by 30.1 per cent (GHG emissions with LULUCF increased by 23.4 per cent) because Iceland experienced one of the highest GDP growth rates (an average annual growth rate of 4.1 per cent in the period 2005–2008) among Organisation for Economic Co-operation and Development (OECD) countries and because the production capacity of the aluminium industry increased between 2006 and 2008 (a third aluminium plant was established in 2007).

21. In 2008, Iceland was hit by an economic crisis when three of the largest banks collapsed, and annual emissions decreased between 2008 and 2010 by, on average, 4 per cent per year. The crisis resulted in a serious contraction of the economy followed by an increase in unemployment, a depreciation of the Icelandic króna (ISK), a drastic increase in external debt and a decrease in private consumption. Between 2011 and 2012, emissions increased again by 0.6 per cent as a result of the economic recovery.

22. The three main sources of carbon dioxide (CO_2) emissions in Iceland are industrial processes, road transport and commercial fishing. Since emissions from electricity generation and space heating are low (because of the use of RES), emissions from stationary combustion are dominated by industrial sources, of which the fishmeal industry is by far the largest user of fossil fuels. The next largest sources of emissions are mobile sources in the construction sector and geothermal energy exploitation. The increase in CO_2 emissions of 53.9 per cent between 1990 and 2012 can be explained by the increased emissions from industrial processes (by 313.9 per cent), road transportation (by 50.1 per cent) and geothermal energy utilization (by 177.3 per cent). Total CO_2 emissions from the commercial fishing and the manufacturing industries and construction sectors, on the other hand, declined by 25.9 and 52.3 per cent, respectively. Iceland's total CO_2 emissions decreased by 0.3 per cent between 2011 and 2012.

23. The main sources of methane (CH_4) emissions since 1990 have been agriculture and waste treatment. Between 1990 and 2012, total CH_4 emissions increased by 4.6 per cent, although CH_4 emissions from agriculture decreased by 6.9 per cent due to a decrease in livestock population, and CH_4 emissions from waste increased by 32.5 per cent due to an increasing share of waste landfilled in managed solid waste disposal sites.

24. The main source of nitrous oxide (N_2O) emissions in Iceland in 2012 was agriculture. Total N_2O emissions decreased by 12.1 per cent between 1990 and 2012. Direct and indirect N_2O emissions from agricultural soils were the most prominent contributors to these emissions, followed by emissions from unmanaged manure and manure managed in solid storage. N_2O emissions from the agriculture sector have decreased by 8.7 per cent since 1990, mainly due to a decrease in livestock populations accompanied by a decrease in manure production. The second most important source of N_2O, since the shutdown of the fertilizer plant in 2001, is road transport. Emissions increased rapidly when catalytic converters became obligatory in all new vehicles in 1995, as N_2O is a by-product of nitrogen oxides reduction in catalytic converters.

25. Emissions of PFCs mainly come from the aluminium industry and total PFC emissions decreased by 81.0 per cent in the period 1990–2012. PFC emissions were influenced by the launch of new, or the expansion of existing, aluminium production plants (in 1997, 1998, 2006 and 2007) and improved technology and process control. PFC emissions per tonne of aluminium are generally high during process start-up and rise during expansion. In 2010, a rectifier was damaged in a fire at the Alcoa Fjardoral aluminium plant, which led to increased PFC emissions.

26. An analysis of the drivers of GHG emission trends in each sector is provided in chapter II.B below. Table 3 provides an overview of GHG emissions by sector from 1990 to 2012.

Table 3
Greenhouse gas emissions by sector in Iceland, 1990–2012

Sector	GHG emissions (kt CO_2 eq)				Change (%)		Share[a] by sector (%)	
	1990	2000	2010	2012	1990–2012	2011–2012	1990	2012
1. Energy	1 778.70	2 041.71	1 869.15	1 717.57	–3.4	–2.9	50.3	38.4
A1. Energy industries	13.67	7.40	6.89	7.36	–46.1	4.7	0.4	0.2
A2. Manufacturing industries and construction	376.96	449.53	212.74	184.06	–51.2	–4.9	10.7	4.1
A3. Transport	620.77	673.77	900.34	852.98	37.4	–1.2	17.5	19.1
A4.–A5. Other	705.27	756.09	556.07	500.30	–29.1	–4.4	19.9	11.2
B. Fugitive emissions	62.04	154.92	193.12	172.87	178.7	–5.0	1.8	3.9
2. Industrial processes	869.03	976.39	1 889.77	1 883.22	116.7	4.7	24.6	42.2
3. Solvent and other product use	9.07	8.31	6.15	6.17	–31.9	–2.1	0.3	0.1
4. Agriculture	736.54	680.00	671.00	678.00	–7.9	1.4	20.8	15.2
5. LULUCF	1 175.07	1 016.49	791.15	706.14	–39.9	–5.3	NA	15.8
6. Waste	144.75	196.23	210.08	182.77	26.3	–7.7	33.2	4.1
GHG total with LULUCF	**4 713.14**	**4 919.13**	**5 437.31**	**5 173.87**	**9.8**	**–0.2**	**NA**	**NA**
GHG total without LULUCF	**3 538.08**	**3 902.65**	**4 646.16**	**4 467.73**	**26.3**	**0.6**	**100.0**	**100.0**

Source: Iceland's 2014 GHG inventory submission, version 1.4, submitted on 15 May 2014, not reviewed.

Note: The changes in emissions and the share by sector are calculated using the exact (not rounded) values and may therefore differ from values calculated with the rounded numbers provided in the table.

Abbreviations: NA= not applicable, GHG = greenhouse gas, LULUCF = land use, land-use change and forestry.

[a] The shares of sectors are calculated relative to GHG emissions without LULUCF; for the LULUCF sector, the negative values indicate the share of GHG emissions that was offset by GHG removals through LULUCF.

3. National system

27. Iceland provided in its NC6 a description of how its national system is performing the general and specific functions defined in the guidelines for national systems under Article 5, paragraph 1, of the Kyoto Protocol (decision 19/CMP.1). The description includes most of the elements mandated by decision 15/CMP.1, with the exception of the process for the recalculation of previously submitted inventory data. The ERT took note of the review of the changes to the national system as reflected in the report of the individual review of the GHG inventory of Iceland submitted in 2013.

28. The Environment Agency of Iceland (EA), under the supervision of the Ministry for the Environment and Natural Resources, has overall responsibility for the national inventory. This agency collects the bulk of data necessary to run the general emission model (i.e. activity data and emission factors). Activity data are collected from various institutions and companies, as well as directly by EA. Emissions and removals from the LULUCF sector are compiled and calculated by the Agricultural University of Iceland (AUI) and then reported to EA. EA is also responsible for preparing the national inventory report (NIR).

29. During the review, Iceland provided additional information on the national system, including on the scheduled cooperation with the EU regarding the GHG inventory, and on how previously submitted data are recalculated. The ERT also learned about progress in the development of further regulations under Act 70/2012 regarding institutional arrangements

to improve data flow to EA and the preparation of a national energy balance by the National Energy Authority (NEA).

30. The ERT concluded that the national system continues to perform its required functions as set out in decision 19/CMP.1. To improve the completeness of the reporting, the ERT reiterates the recommendation made in the previous NC that Iceland include in its next NC information on the processes used for the recalculation of previously submitted inventory data.

4. National registry

31. In its NC6, Iceland has provided information on the national registry in accordance with the annex to decision 13/CMP.1 and the annex to decision 5/CMP.1. The ERT took note of the review of the changes to the national registry as reflected in the report of the individual review of the GHG inventory of Iceland submitted in 2013.

32. As Iceland joined the European Union Emissions Trading System (EU ETS), in its NC6 Iceland described the changes, specifically due to the centralization of the EU ETS operations into a single EU registry operated by the European Commission and called the Consolidated System of European Union registries (CSEUR). As of June 2012, Iceland's national registry is included in the CSEUR, a consolidated platform which implements the national registries in a consolidated manner and was developed together with the new EU registry.. The Icelandic national administrator of the registry is EA.

33. The ERT concluded that Iceland's national registry continues to perform the functions set out in the annex to decision 13/CMP.1 and the annex to decision 5/CMP.1, and continues to adhere to the technical standards for data exchange between registry systems in accordance with decisions 16/CP.10 and 12/CMP.1.

5. Domestic and regional programmes and/or legislative arrangements and procedures related to the Kyoto Protocol

34. Iceland has reported in its NC6 information on domestic and regional programmes and legislative arrangements and procedures related to the Kyoto Protocol.

35. The overall responsibility for climate change policymaking lies within the Ministry for the Environment and Natural Resources of Iceland, and a number of national institutions are involved in the implementation of this policy.

36. Implementation of the Kyoto Protocol is underpinned by the Climate Change Strategy adopted in 2007, and the Climate Change Action Plan endorsed by the Government in 2010 (hereinafter referred to as the Action Plan) (see also para. 49 below). A number of additional laws, including Act No. 64/2011, which transposes the EU ETS into Icelandic law, and Act No. 129/2009 introducing the carbon tax, complement the overarching frameworks.

37. A committee, chaired by the Ministry for the Environment and Natural Resources and composed of representatives from various central government agencies and local authorities, was appointed in 2011. The committee is composed of representatives from the Prime Minister's Office, the Ministry of Finance and Economic Affairs, the Ministry of Industries and Innovation, the Ministry of the Interior and the Association of Local Authorities in Iceland. The committee issues annual status reports to monitor the implementation of key actions and the effects of the Action Plan on actual emissions compared with set objectives.

38. Concerning the provision of public access to information, the website of the Ministry for the Environment and Natural Resources[7] contains official information on climate change, including on relevant Acts, regulations and policies, as well as information on the Convention and its Kyoto Protocol.

39. Iceland provided a description of national legislative arrangements and administrative procedures that seek to ensure that the implementation of activities under Article 3, paragraph 3, and elected activities under Article 3, paragraph 4, of the Kyoto Protocol also contribute to the conservation of biodiversity and the sustainable use of natural resources. Act No. 44/1999 on nature conservation sets general criteria for nature conservation and human interference with nature. This Act is the main legal basis for the protection of areas, organisms, ecosystems and biodiversity.

40. According to the Act on nature conservation, an Environmental Assembly is to be called every two years to discuss environmental and nature protection, and sustainable development. The Environmental Assembly is composed of members of parliament, and representatives from government and municipal agencies, employers and non-governmental organizations (NGOs). Additionally, a new Forestry Strategy was presented to the Minister for the Environment and Natural Resources in 2013. The strategy sets out the objectives for the forestry sector over the next 50–60 years and is underpinned by five main areas of emphasis, one of them being "environmental quality and biodiversity".

B. Policies and measures, including those in accordance with Article 2 of the Kyoto Protocol

41. Iceland has provided in its NC6 information on its package of PaMs implemented in order to fulfil its commitments under the Convention and its Kyoto Protocol.

1. Policies and measures related to implementation of commitments under the Convention

42. The NC6 contains a similar set of PaMs to those reported in the NC5. However, because the Action Plan was endorsed by the Icelandic Government in 2010 following the publication of its NC5, Iceland has provided comprehensive information on this new development in its NC6.

43. Iceland reported on the PaMs it has implemented in order to achieve its commitments under the Convention and provided information on PaMs by sector; each sector has its own textual, but general, description of the principal PaMs. The NC6 does not, however, include some information required by the UNFCCC reporting guidelines on NCs, such as a textual description of the principal PaMs by sector with the name, objective, GHG(s) affected, type or types of policy or measure, status of implementation and the implementing entity or entities of each PaM. While this information is provided in a summary table at the end of the PaMs chapter, the ERT recommends that Iceland provide a textual description of the principal PaMs in its next NC to improve the transparency of the PaMs chapter.

44. Iceland has also provided limited information on how it believes its PaMs are modifying longer-term trends in anthropogenic GHG emissions and removals, in accordance with the objective of the Convention. The ERT recommends that Iceland improve the transparency of its next NC by elaborating on this issue.

[7] <www.umhverfisraduneyti.is>.

45. The NC6 does not include some information required by the UNFCCC reporting guidelines on NCs on adopted and planned PaMs, the costs of implementation of the reported PaMs, PaMs that are no longer in place compared to those reported in the NC5 and an explanation of why these PaMs were discontinued, and information on PaMs that could potentially lead to greater levels of anthropogenic GHG emissions than would otherwise occur. Additionally, the NC6 does not provide any information on quantitative estimates of the impacts of individual PaMs or collections of PaMs on GHG emissions and removals. During the review, Iceland provided some quantitative estimates to this effect for each of its 10 key actions under its Action Plan. The ERT is of the view that reporting this information in the next submission would greatly improve the transparency and completeness of the PaMs chapter. The ERT therefore encourages Iceland to include this information in its next NC.

46. Some of the recommendations made in the previous review report were taken into consideration in order to improve the reporting in the NC6, including the inclusion of a summary table of PaMs by sector. The ERT commends Iceland for these improvements, and encourages the Party to continue its efforts to improve the transparency and completeness of its next NC.

2. Policy framework and cross-sectoral measures

47. The Icelandic Government adopted a Climate Change Strategy in 2007. This strategy is conceived as a framework for government action and involvement in climate change issues, setting forth a domestic long-term target of reducing net emissions of GHGs by 50–75 per cent by 2050 compared with 1990 levels. Five principal objectives underpin this strategy: (1) the fulfilment of international obligations under the Convention and its Kyoto Protocol; (2) the reduction of GHG emissions, with a special emphasis on reducing the use of fossil fuels in favour of renewable energy and climate-friendly fuels; (3) increasing carbon sequestration from the atmosphere through afforestation, revegetation, wetland reclamation, and changed land use; (4) fostering research and innovation in fields related to climate change affairs and promoting the export of Icelandic expertise in fields related to renewable energy and climate-friendly technologies; and (5) preparation for adaptation to climate change.

48. Based on the Climate Change Strategy, two reports were commissioned by the Icelandic Government. The aim of the first report was to compile and summarize the best available scientific knowledge of the likely impacts of climate change on Iceland and to present proposals on adaptation efforts. The aim of the second report was to explore the technical possibilities of mitigating GHG emissions in different sectors of the economy. Both reports were delivered to the Government in 2008 and 2009, and both are publicly available.

49. On the basis of the Climate Change Strategy and the two aforementioned reports, an Action Plan was endorsed by the Icelandic Government in 2010 (see also para. 36 above). The Action Plan is the key framework put in place by the Government to define and implement actions to reduce GHG emissions and enhance carbon sequestration in Iceland. The Action Plan covers economy-wide measures, and is underpinned by 10 key actions.[8] During the review, Iceland explained that, based on expert opinion and on the findings of the two technical reports, the total effect of these 10 key actions is estimated to be a

[8] The 10 actions are: (1) implementation of the EU ETS; (2) a tax on carbon; (3) changing the system for taxes and levies on vehicles and fuel; (4) procurement of low-emission and environmentally friendly vehicles for government and local authorities; (5) increased walking, cycling and use of public transportation; (6) use of biofuels for the fishing fleet; (7) electrification of the fishmeal industry; (8) afforestation and revegetation; (9) restoration of wetlands; and (10) enhanced research and innovation in the field of climate change.

reduction in net GHG emissions in the range of 1,330–1,570 kt CO_2 eq/year by 2020 compared to the 'business as usual' scenario. As this information was provided in the in-depth review of the NC5, and again during the current NC6 review, the ERT encourages Iceland to include this information in its next NC.

50. A committee, chaired by the Ministry for the Environment and Natural Resources and composed of representatives from various central government agencies and local authorities, was appointed in 2011. The committee issues annual status reports to monitor the implementation of key actions and the effects of the Action Plan on actual emissions compared to set objectives. The results of the first annual reports are not reported in the NC6, but it is the view of the ERT that the provision of these results would enhance the transparency of the PaMs chapter. The ERT encourages Iceland to include the results of the observed and monitored effects of PaMs under the Action Plan in its next NC. Iceland may also wish to update its estimates of the total effect of its Action Plan in the light of the annual reports prepared by the committee and as more information becomes available, and report these updated figures in its next submission.

51. Iceland is a member of the European Economic Area (EEA) under the EEA Agreement. Through this agreement, Icelandic environmental legislation has become aligned with EU legislation in many areas.

52. The first main cross-cutting PaM is the EU ETS. Iceland has been part of the EU ETS since 2012. The EU ETS was transposed into Icelandic law in 2011 (Act No. 64/2011), and is one of the two main cross-cutting PaMs in the Icelandic economy. CO_2 emissions from the aviation industry have been regulated under the EU ETS since 1 January 2012. Since 1 January 2013 three aluminium plants, a ferrosilicon plant and a fishmeal factory have fallen under the EU ETS. The EU ETS therefore covered about 40 per cent of GHG emissions from Iceland in 2013. Benchmarking, gradual lowering of the cap and trading of allowances under the EU ETS are designed to encourage a shift towards cleaner technologies and lower GHG emissions in these industries.

53. During the review, Iceland explained that, based on expert opinion, when the 2010 Action Plan was designed, the expected mitigation impact of the EU ETS would be to lower GHG emissions by 100–150 kt CO_2 eq/year by 2020. The ERT encourages Iceland to include this type of information in its next submission, and to re-estimate the mitigation potential of this policy when more data on its measured effects become available.

54. The second main cross-cutting PaM is a carbon tax on fossil fuel that was introduced on 1 January 2010 by Act No. 129/2009 on environment and natural resources taxes. The tax is levied on fossil fuels in liquid or gaseous form with respect to the carbon content of the fuels. As of 1 January 2010, the following rates of taxes on fossil fuel have been introduced: ISK 5.75/litre of gas and diesel oil, ISK 5.00/litre of gasoline, ISK 7.10/kg of fuel oil and ISK 6.30/kg of petroleum gas or other gaseous hydrocarbons. With a value added tax set at 25.5 per cent, the carbon tax on diesel oil and gasoline amounts to ISK 7.23/litre and ISK 6.28/litre respectively. This means that the carbon tax on diesel and gasoline corresponds to approximately 16 EUR/t emitted CO_2.

55. During the review, Iceland explained that, based on expert opinion, when the 2010 Action Plan was designed, the expected mitigation impact of the carbon tax would be to lower GHG emissions by 50–100 kt CO_2 eq/year by 2020. The ERT encourages Iceland to include this type of information in its next submission, and to re-estimate the mitigation potential of this policy when more data on its measured effects become available.

56. The NC6 does not provide a quantitative estimate of the effects of the EU ETS and carbon tax on fossil fuels since they have been implemented. Given the importance of these two PaMs in Iceland's climate change policy framework, the ERT encourages Iceland to provide this type of information in its next NC.

57. A representative from the Association of Local Authorities in Iceland sits on the Action Plan committee. This highlights the fact that local authorities and municipalities play an important role in Iceland's overall climate change policy. Some of the PaMs reported in the PaMs chapter of the NC6 are implemented by local authorities. For example, one of the 10 key actions is the procurement of low-emission and environmentally friendly vehicles for government and local authorities. The proportion of electric vehicles and vehicles powered with methane from Reykjavik's landfill amounted to 56 per cent of the vehicle fleet owned by the city. Table 4 provides a summary of the reported information on the PaMs of Iceland.

Table 4
Summary of information on policies and measures reported by Iceland

Sectors affected	*List of key policies and measures*	*Estimate of mitigation impact (kt CO_2 eq)*
Policy framework and cross-sectoral measures		
Energy	Climate Change Strategy 2007	NA
	Climate Change Action Plan 2010	1 330–1 570
	European Union Emissions Trading System[a]	100–150
	Carbon tax on fossil fuels[a]	50–100
	Enhanced R&D and innovation in the field of R&D[a]	100–200
Renewable energy	Icelandic National Renewable Energy Action Plan 2012	NE
	Grants for geothermal exploration in "cold areas"[b]	NE
Residential and commercial sectors	Electrification of the fishmeal industry[a]	25–50
Transport	Transport Policy Plans for 2011–2022 and 2011–2014 (2012)	NE
	Changes in taxes and fees for cars and fuels[a]	20–100
	Low-emission vehicles in public procurement[a]	NE
	Increased public transportation and cycling[a]	20–40
	Biofuels for the fishing fleet[a]	50–170
Industrial sectors	Electrification of the fishmeal industry	NE
	Legislation and regulation to control fluorinated gases	NE
Agriculture	Applied research experiments on fertilizer application	NE
Forestry	Forestry Strategy (2013)	NE
	Government funding for afforestation and revegetation[a]	775
	Restoration of wetlands[a]	50–100
Waste management	National Plan for Waste Management (2004–2016)	NE

Note: These estimates were not provided by Iceland in its NC6. The estimates are based on the original Climate Change Action Plan, and were provided to the ERT during the review.

Abbreviations: NA = not applicable, NE = not estimated, R&D = research and development.

[a] The measure is one of the 10 key measures in the 2010 Climate Change Action Plan.

[b] "Cold areas" are remote areas that are not connected to geothermal energy sources.

3. Policies and measures in the energy sector

58. Between 1990 and 2012, GHG emissions from the energy sector decreased by 3.4 per cent (61.13 kt CO_2 eq), mainly owing to decreases in the manufacturing industries and construction sector and other sectors (e.g. fishing and residential/commercial sectors). These decreases were counterbalanced mainly by increases in the road transportation sector.

59. ***Energy supply***. Iceland has a unique energy profile compared with other Parties included in Annex I to the Convention (Annex I Parties). RES accounted for approximately 86.0 per cent of primary energy supply in 2011 in the form of the hydropower and geothermal sectors. The remaining 14.0 per cent of primary energy supply comes from imported fossil fuels, which are mainly used in the transportation and fisheries sectors. The abundance of domestic renewable energy means that the energy supply is higher than energy demand, thus the installation of additional energy capacity is not planned, unless a new industrial plant were to be constructed.

60. Geothermal energy production is not completely climate-neutral, as it causes dissolved CO_2 in geothermal fluid to be released more rapidly than would occur naturally. Such emissions are measured and accounted for in Iceland as fugitive CO_2 emissions. These emissions are still negligible compared with emissions that would occur if heating and electricity production, which is now produced from geothermal sources, were produced by fossil fuels. Iceland leads applied research in storage opportunities for CO_2 from geothermal industry (see para. 150 below).

61. ***Renewable energy sources***. Hydropower and geothermal power accounted for 99.9 per cent of electricity production and 99.0 per cent of space heating in 2011. The ERT noted that this means that there is very little room to improve the share of RES in these sectors and therefore reduce GHG emissions by increasing the share of RES.

62. Iceland's National Renewable Energy Action Plan (2012) sets out a strategic approach for how the country will meet its mandatory national targets for 2020 laid down in EU directive 2009/28/EC, which includes an overall target of 72 per cent share of energy from RES in gross final consumption of energy, and a 10 per cent target for the share of energy from RES in transport. The share of energy from RES in gross final consumption was 63.4 per cent in 2005, and increased to 75.7 per cent in 2011, surpassing the 2020 target by 3.7 per cent. The target for the share of energy from RES in transport is yet to be achieved (see para. 68 below).

63. As a measure to promote the use of geothermal energy to replace oil use in "cold areas" (remote areas that are not connected to geothermal energy sources), Iceland has provided grants for geothermal exploration in these areas since 2002. Through this scheme, municipalities can apply for grants to try to source geothermal energy. If no geothermal source is discovered following the drilling, the municipalities do not have to pay back the grant. However, if geothermal sources are found, the municipalities would have to pay back the grant.

64. ***Energy efficiency***. The NC6 does not present much information on energy efficiency measures. However, Iceland provided some additional information during the review on this matter, which is also reflected in Iceland's National Renewable Energy Action Plan. The electricity sector and a large part of the heating and cooling sectors are based on comparably cheap hydropower and geothermal energy sources and, therefore, there is not a lot of emphasis on additional efforts in energy efficiency and in increasing the share of RES in those sectors, because return on investment is low. The ERT encourages Iceland to elaborate on energy efficiency in its next NC.

65. ***Residential and commercial sectors***. Emissions from the residential and commercial sectors amounted to approximately 1 per cent of energy emissions in Iceland in 2011. Since Iceland relies essentially on its RES, fuel use for residential, commercial and institutional heating is very low and is mainly used in the fishing and transport sectors. Additionally, one of the 10 key actions in Iceland's Action Plan is the electrification of the fishmeal industry. Since 1990, in total, the share of electricity for energy use has grown from approximately 5 per cent to more than 50 per cent in 2012.

66. ***Transport sector***. GHG emissions from transport increased by 37.4 per cent between 1990 and 2012, as a larger share of the population uses private cars for their daily travel. Liquid fossil fuels (oil) are mainly used in the transport and fishing sectors. As such, the Action Plan focuses on these two sectors with 6 of 10 key actions identified in the plan. The measures include an excise duty and a biannual fee on vehicles based on CO_2 emissions, a lowering of the excise duty and tax on methane-powered vehicles, and the suppression of value added tax on zero-emission vehicles (see table 4 above).

67. The aviation sector has been covered by the EU ETS since 1 January 2012 for flights within Europe, and a number of acts, regulations, directives and measures have been implemented in recent years to help to support the implementation of the key actions listed in the Action Plan.

68. During the review, Iceland indicated that while the overall target for the share of RES has already been exceeded, the 10 per cent target for the share of energy from RES for transport is more difficult to achieve and raises questions of sustainability of imported biofuels. The Party intends to achieve the target by 2020 through several EU directives (e.g. directive 2009/28/EC on the promotion of the use of energy from renewable sources) and Acts (e.g. Act No. 40/2013 on renewable fuel in ground transportation). The ERT encourages Iceland to report on the progress made towards this target in its next NC.

69. Iceland has given special attention to the procurement of low-emission vehicles in public transportation and to increasing the share of public transportation, cycling and walking in the Action Plan. Public transport, cycling and walking are an area where Icelandic municipalities, particularly in the area around the capital, play an important role in the implementation of the Action Plan. The city of Reykjavik, for example, adopted a policy with the aim of reducing negative effects of vehicle traffic on the environment and of enhancing environmentally friendly transportation.

70. The proportion of electric vehicles and vehicles powered with methane from the city's landfill represented 56 per cent of the vehicles owned by the city in early 2013. Additionally, Reykjavik city issued the action plan "Reykjavik, the bike city" in 2010 with the objective of greatly increasing the use of bicycles in the city. The total length of bicycle paths is set to increase from 10 kilometres in 2010, to 50 kilometres in 2015 and 100 kilometres in 2020: a tenfold increase in 10 years.

71. During the review, Iceland elaborated on the fact that the tourism industry has grown exponentially in Iceland, resulting in a large inflow of tourists and, therefore, an increase in the use of road transportation. The number of foreigners visiting Iceland through Keyflavik Airport has increased by about 75 per cent between 2003 and 2011. Iceland and the ERT noted that, as this trend is set to continue, transport emissions from the tourism sector are also likely to increase in the future. The ERT encourages Iceland to continue to monitor the impact of tourism on its emission profile, and to report on the ways to mitigate an increase in emissions from this sector.

72. ***Fisheries sector.*** According to the NC6, the Icelandic fishing fleet currently uses about 200,000 tonnes of oil per year and Iceland expects that climate-friendly energy sources will increasingly replace fossil fuels in fishing vessels in the near future, such as domestically produced or imported biodiesel.

73. The Icelandic Maritime Administration has examined the possibility of using rapeseed oil, and worked in cooperation with farmers to study the feasibility of growing rapeseed. Additionally, the Ministry for the Interior provided ISK 50 million in research grants for projects in the field of energy shifting in shipping. Given that the fishing industry used more than a third of liquid fossil fuels in Iceland in 2011, the ERT reiterates the encouragement from the ERT for the NC5 that the Party continue to report on the options for using RES for this sector, and to include further information on progress in its next NC.

74. ***Industrial sector***. The fishmeal industry has for decades been the highest industrial user of oil in Iceland. Oil boilers used in the industry have gradually been replaced with electric boilers, resulting in less oil consumption and a reduction in CO_2 emissions. This development is expected to continue as more fishmeal factories convert their oil boilers to electric boilers. However, fishmeal factories in remote locations have limited access to electricity from the grid and, therefore, their opportunities to convert the boilers are limited.

4. Policies and measures in other sectors

75. Between 1990 and 2012, GHG emissions from industrial processes (including solvent and other product use), agriculture and waste increased by 56.3 per cent (990.78 kt CO_2 eq), mainly owing to an increase in aluminium production, and the increase in the population and GDP of Iceland.

76. ***Industrial processes***. Between 1990 and 2012, GHG emissions from the industrial processes sector increased by 116.7 per cent (1,014.29 kt CO_2 eq), mainly owing to the expansion of energy-intensive industries. The largest category in the industrial processes sector in 2012 was metal production, which accounted for 92.0 per cent of the sector's emissions.

77. Emissions from the industrial processes sector are mainly covered by the EU ETS. Three aluminium plants, a ferrosilicon plant and a fishmeal factory fall under the EU ETS. Total emissions from these companies amount to approximately 40 per cent of Iceland's GHG emissions.

78. Four smaller installations (three fishmeal factories and a mineral wool producer) have been excluded from the EU ETS, but are subject to measures equivalent to measures under the EU ETS. During the review, Iceland explained that these companies pay a fee for their GHG emissions, equivalent to what they would have paid if they were in the EU ETS. The upside for the companies is that they avoid the complexity of participating in the EU ETS system, but they also forsake any credits they might gain from trading in permits. The ERT encourages Iceland to include this information in its next NC.

79. With regard to fluorinated gases, legislation was passed in the Icelandic Parliament in 2009 (Act No. 92/2009) to control fluorinated gases (hydrofluorocarbons (HFCs), PFCs and sulphur hexafluoride (SF_6)). A regulation on fluorinated gases was also set in 2010 (Regulation No. 834/2010). During the review, Iceland indicated that the legislation and regulation implement the following EU regulations on fluorinated gases: Nos. 842/2006, 1494/2007, 1497/2007, 1516/2007, 303/2008, 304/2008, 305/2008, 306/2008, 307/2008 and 308/2008.

80. The Act and regulation set a framework for uses, management, marketing, labelling, leakage checks, training and certification with respect to HFCs, PFCs and SF_6. The purpose is to reduce the release and contribute towards the safe handling of these substances with respect to the protection of the environment. Iceland expects that the framework will contribute to the minimization of emissions of these gases.

81. ***Agriculture***. Between 1990 and 2012, GHG emissions from the agriculture sector decreased by 7.9 per cent (58.54 kt CO_2 eq). This decrease is mainly due to a decrease in

the livestock (mainly sheep) population, reducing CH_4 emissions from enteric fermentation, and reduced fertilizer application, in turn reducing N_2O emissions from agricultural soils. In total, 86.1 per cent of CH_4 emissions were caused by enteric fermentation, and the remainder resulted from manure management.

82. Studies have been undertaken to explore the possibility of reducing agricultural emissions from fertilizer application. During the review, Iceland also explained that the expert study undertaken in 2009 found little mitigation potential from agriculture. There are no key actions pertaining to agriculture in the Action Plan, but the Action Plan mentions that the recovery of CH_4 from manure in manure storage facilities could be pursued.

83. Iceland acknowledged that it could pay greater attention to the application of fertilizer and recovery of CH_4 from manure in manure storage facilities, particularly as the committee that monitors the implementation of the Action Plan indicates that agricultural emissions are higher than they were projected in the Action Plan. The ERT encourages Iceland to elaborate on the ongoing relevant research and implementation of relevant measures in its next NC.

84. ***LULUCF***. The LULUCF sector was a net source of 706.14 kt CO_2 eq in Iceland in 2012. Emissions have decreased by 39.9 per cent since 1990. This is explained by the increased removals through afforestation and revegetation as well as the decrease in emissions from land converted to cropland. The increased removals in afforestation and revegetation are explained by the increased rates of planting in these two categories, which can be attributed to government measures and increases in living biomass due to forest growth with stand age.

85. Increased afforestation and revegetation, as well as the restoration of drained wetlands, are among the 10 key actions of the Action Plan. Opportunities for mitigation efforts by carbon sequestration through afforestation and revegetation are abundant because of vast amounts of land being available, given the loss of forest cover since settlement in the ninth century. Afforestation and revegetation are also used to mitigate erosion in Iceland, for example with the planting of native birch in volcanic areas. State funding has been the main driver of afforestation in Iceland, with projects starting in 1907. However, State funding has been cut by 40 per cent following the financial crisis in 2008, which has resulted in a decrease of nearly 50 per cent in the number of new forests planted since then. As the LULUCF sector is important for Iceland to meet its future international commitments, the ERT encourages Iceland to report on the trends in allocated grants for forestry in its next submission.

86. The new Forestry Strategy was presented by the Minister for the Environment and Natural Resources in 2013, after stakeholder and public consultation. The strategy is divided into five main areas of emphasis, two of which are "environment quality and biodiversity" and "climate change". Among the goals and means to achieve these are: the enhancement of the role of carbon sequestration; and adapting forestry to climate change impacts.

87. Further information on the potential of increasing removals from the LULUCF sector was presented to the ERT during the review. The ERT encourages Iceland to provide quantitative information on the potential mitigation effects of the LULUCF sector in its next NC, particularly as Iceland plans to use removals from the LULUCF sector to meet its future targets under the Convention and its Kyoto Protocol.

88. The Wetland Center was established at the AUI in 2008 to develop methods to measure and estimate emissions and removals from the restoration of drained wetlands. Large wetland areas in the Icelandic lowlands were drained in the decades after 1940. The reduction potential of restoring these wetlands has been estimated to be considerable (as high as 15 per cent of net national GHG emissions in 2020 from a 'business as usual'

scenario when combined with afforestation and revegetation). As noted above, this is one of the 10 key actions under the Action Plan.

89. ***Waste management*** Between 1990 and 2012, GHG emissions from the waste sector increased by 26.3 per cent (38.02 kt CO_2 eq), mainly owing to an increase in CH_4 emissions from solid waste disposal on land. Emissions increased until 2007, and have been decreasing steadily since then.

90. Icelandic legislation covering waste management is in accordance with EU legislation. Iceland has transposed into national law the EU legislation on waste covered by the EEA Agreement. The Environment Agency published a National Plan for Waste Management (2004–2016) that applies to the whole country, with the objective of reducing the generation of waste in a targeted manner, increasing reuse and recycling, and reducing the proportion of waste that is sent for disposal.

91. Most municipalities have developed regional waste management plans based on the National Plan. Waste management has changed considerably in recent years, as the recovery of waste has increased and primitive waste incinerators and unmanaged landfills have been closed. About 66 per cent of waste was recovered in 2011 compared with 15 per cent in 1995, and landfilled waste amounted to 31 per cent of deposited waste in 2011 compared with 79 per cent in 1995.

5. Policies and measures related to implementation of commitments under the Kyoto Protocol

92. Iceland reported on its package of PaMs adopted, implemented and elaborated in achieving its commitment under the Kyoto Protocol.

93. The NC6 does not include some information required by the UNFCCC reporting guidelines on NCs, namely on the steps Iceland has taken to promote and/or implement any decisions by the International Civil Aviation Organization (ICAO) and the International Maritime Organization (IMO) to limit or reduce emissions of GHGs not controlled by the Montreal Protocol from aviation and marine bunker fuels. During the review, Iceland indicated that it implements most of the decisions made by ICAO and IMO, in particular those related to environmental standards in aviation and maritime transport.

94. Iceland acknowledged during the review that, because of a lack of funding, it has not been able to attend all of the meetings arranged by those organizations. The ERT recommends that Iceland identify in its next NC the steps it has taken to promote and/or implement any decisions by ICAO and IMO.

95. In its NC6, Iceland reported information on how it strives to implement PaMs under Article 2 of the Kyoto Protocol in such a way as to minimize adverse effects, including the adverse effects of climate change and effects on international trade and social, environmental and economic impacts, on other Parties, especially developing country Parties. Further information on how Iceland strives to implement its commitments under Article 3, paragraph 1, of the Kyoto Protocol in such a way as to minimize adverse social, environmental and economic impacts on developing country Parties, as reported in the 2014 annual submission, is presented in chapter III.B below.

96. To further improve transparency and adherence to the UNFCCC reporting guidelines on NCs, the ERT recommends that Iceland include this additional information referred to in paragraph 95 above in the section on "Policies and measures in accordance with Article 2 of the Kyoto Protocol", and, if appropriate, also make reference to chapter 15 of its latest national GHG inventory submission, in its next NC.

97. The NC6, Iceland's 2014 annual submission and the additional information provided during the review present several initiatives of Iceland aimed at minimizing adverse

impacts, including cooperating in the further development of geothermal technologies and supporting developing countries in the area of sustainable utilization of natural resources through Iceland's administration of the United Nations University Geothermal Training Programme, as well as conducting research on sequestration of CO_2 in the form of carbonate minerals in basaltic bedrocks (see CarbFix project, para. 150 below).

C. Projections and the total effect of policies and measures, including information on supplementarity relating to the mechanisms pursuant to Articles 6, 12 and 17 of the Kyoto Protocol

98. A 'with measures' projection scenario was developed for the purposes of reporting of the NC6. This projection scenario differs from the scenarios (two 'business as usual' projection scenarios with different industrial activity levels and the 'with measures' projection scenario) reported by Iceland in its NC5 based on the estimated effects of individual mitigation actions included in the Action Plan. The projection scenario reported in the NC6 includes some of the PaMs in the Action Plan, although not all of them have been fully implemented. Iceland provided more detailed information about the projection scenario and its underlying key variables and assumptions during the review.

1. Projections overview, methodology and key assumptions

99. The GHG emission projection provided by Iceland in the NC6 is a 'with measures' scenario until 2030, presented relative to actual inventory data for 1990, 2000, 2010 and 2011 and partially also for 1995 and 2005. Projections are presented on a sectoral basis, using most of the same sectoral categories used in the PaMs section (except for LULUCF) and on a gas-by-gas basis for the following GHGs: CO_2, CH_4, N_2O, PFCs, HFCs and SF_6 (treating PFCs and HFCs collectively in each case). Projections are also provided in an aggregated format for each sector as well as for a national total without LULUCF, using global warming potential values from the Intergovernmental Panel on Climate Change (IPCC) Second Assessment Report. Emission projections related to fuel sold to ships and aircraft engaged in international transport were reported separately and not included in the totals.

100. The NC6 does not include some information required by the UNFCCC reporting guidelines on NCs, namely information encompassing all currently implemented and adopted PaMs in a 'with measures' projection. During the review, Iceland provided additional information to elaborate on the new projection and its underlying key variables and assumptions. Nevertheless, the Party could not identify exactly which PaMs had been taken into account for the new scenario, as it was developed for purposes other than for climate change issues. The ERT recommends that Iceland improve the transparency of its NC6 and clearly explain which PaMs, including those from the Action Plan, are included in the 'with measures' scenario in the next NC. To enhance transparency, Iceland may also wish to develop and report a 'without measures' scenario.

101. The ERT noted that there is no projection for LULUCF in the NC6, but instead Iceland reports the projection for forestry and revegetation. The PaMs section refers to LULUCF, and the different sectoral split makes it difficult to assess the effects of individual PaMs. It is not clear whether the GHG emissions/removals reported for forestry and revegetation are equivalent to the whole LULUCF sector. The ERT recommends that Iceland develop and present a LULUCF projection in its next NC. Also, Iceland provides no projection for the EU ETS, which the ERT considers could be helpful.

102. Iceland reported on the changes to the methodology compared with that used in the NC5 and provided supporting documentation, namely the assumption for higher GDP

growth and other main factors. Compared with the projections presented in the NC5, the changes to the methodology in the NC6 resulted in an increase in GHG emissions in agriculture, energy and transport in 2020, a decrease in GHG emissions from the waste sector, higher predicted net removals from afforestation, reforestation and deforestation, additional net removals from forest management and a reduction in net removals from revegetation.

103. The reason for these differences is explained in a transparent way, except for the energy and transport sectors, which have a very general, but not detailed, explanation. The industrial processes sector lies within the scope of the former scenarios 1 and 2 (as they assume different industrial activity levels). The 'with measures' scenario in the NC6 projects the level of GHG emissions in 2020 without LULUCF (4,338 kt CO_2 eq) to be lower than that projected in scenario 1 (4,650 kt CO_2 eq) or scenario 2 (5,990 kt CO_2 eq), provided during the in-depth review of the NC5. The 'with measures' scenario in the NC6 is within the range of the updated 'with additional measures' projection scenarios 1 (4,120 kt CO_2 eq) and 2 (5,320 kt CO_2 eq), which take into account the PaMs of the Action Plan. It is also within the range of the further updated 'with measures' projection scenarios 1 (3,387 kt CO_2 eq) and 2 (4,563 kt CO_2 eq), which also take into account the PaMs of the Action Plan, provided during the in-depth review of the NC6. The ERT noted that the figures for the scenarios 1 and 2 are different in the additional information provided during the review. Iceland explained that this was due to an update of the projections in the two scenarios

104. The ERT noted that a re-evaluation of the Action Plan on the basis of the new projection could be helpful in order to properly consider whether the target set will be met.

105. The ERT also noted that the underlying key assumptions, such as GDP, population, oil price, and use of oil, hydropower or geothermal, for the current projection are shown in a transparent manner. The projections of GHG emissions from the energy and transport sectors are based mainly on NEA's forecast for use of fossil fuels, geothermal, electricity and general assumptions for the period 2008–2050, as recalculated in 2012. In this forecast, the consumption of fuels, geothermal and electricity is estimated per sector based on historical experience and given assumptions – which includes some of the PaMs from the Action Plan – for future development.

106. Further assumptions for the projections for the industrial processes, agriculture, waste, forestry and revegetation sectors were made on the basis of data provided by EA, the Farmers Association of Iceland, Statistics Iceland and AUI, or based on expert judgement.

107. The approach for the projection model is a calculation of different emission sources on the basis of the given assumptions. The general assumptions for GDP and population growth or international oil prices are used for all sectors.

108. The projections are prepared by EA and AUI, and are commissioned by the Ministry for the Environment and Natural Resources on an ad hoc basis. In order to increase the transparency and consistency of its reporting, Iceland may wish to enhance cooperation between the institutions that prepare the projections for energy consumption and GHG emissions and harmonize these projections.

109. The ERT noted a few mistakes, such as the year of projections in chapter 5.3.8.4 of the NC6 and some editing mistakes. The ERT encourages Iceland to improve the accuracy of its reporting and perform a quality assurance check of the next NC.

2. Results of projections

110. The reported data indicate that Iceland is on track to meet its obligations during the first commitment period of the Kyoto Protocol to keep GHG emissions within 10 per cent above 1990 levels with domestic measures only if decision 14/CP.7 is taken into account.

Iceland expects to achieve this target through emission reductions from the portfolio of existing PaMs and taking into account the provisions of decision 14/CP.7.

111. Decision 14/CP.7 on the impact of single projects on emissions in the commitment period allows Iceland to report certain industrial process CO_2 emissions separately and not include them in national totals. Up to 1,600 kt CO_2/year of additional CO_2 from new heavy industry originating after 1990 are authorized to be reported separately by decision 14/CP.7 if the industry meets the prescribed conditions. According to Iceland, emissions falling under provisions of decision 14/CP.7[9] amounted to 1,279 kt CO_2 in 2012. The CO_2 emissions falling under the decision will not exceed the total amount of 8,000 kt CO_2 in the first commitment period.

112. For the first commitment period of the Kyoto Protocol, Iceland elected revegetation under Article 3, paragraph 4, of the Kyoto Protocol, and net removals are projected to be 221 kt CO_2 eq in 2020. This is less than half of the projected net removals reported in the NC5 (555 kt CO_2 eq). The reason for this difference lies mainly in the difference in the annual revegetation area increase, but is also due to a changed factor for the annual CO_2 removal rate per hectare.

113. Total emissions without LULUCF in 2012 are 26.3 per cent higher than in 1990, but 9.9 per cent lower if CO_2 emissions, fulfilling the requirements of decision 14/CP.7 are excluded. The target for the first commitment period of the Kyoto Protocol is to keep GHG emissions within 10 per cent above 1990 levels with domestic measures only if decision 14/CP.7 is taken into account.

114. The EU, its 28 member States and Iceland, jointly committed to reduce their GHG emissions in 2020 by 20 per cent below the 1990 level and by 30 per cent provided that other developed countries commit themselves to comparable reductions and that developing countries contribute adequately given their responsibilities and respective capabilities. Iceland sets a target within the EU to not exceed the GHG emissions of 15,327.22 kt CO_2 eq from sectors not covered by the EU ETS in the second commitment period of the Kyoto Protocol, from 2013 to 2020. Industrial emissions fall under the EU ETS, which was transposed into Icelandic law in 2011. Aviation became part of the EU ETS in 2012 and primary production of non-ferrous metals in 2013.

115. Total emissions without LULUCF are expected to decrease until 2030. Iceland intends to account for LULUCF activities in the second commitment period. Emissions and removals from the LULUCF sector are calculated by AUI on the basis of information provided by the Icelandic Forest Research on forest management and ARD and the Soil Conservation Service of Iceland (SCSI) on revegetation.

116. The projections for the forestry sector are split into afforestation, reforestation and deforestation, and forest management. The current prediction of net removals from afforestation, reforestation and deforestation in 2020 is a little higher than that in the NC5 (266 kt CO_2 eq instead of 220 kt CO_2 eq), despite the fact that the activity level of predicted afforestation has dropped and wood removals were not included. The main reason for this is that the removals from afforestation of the natural birch forest are included in the current

[9] According to decision 14/CP.7, emissions from industrial process projects up to 1.6 Mt CO_2 eq annually that meet the criteria specified in this decision shall be reported separately and shall not be included in national totals under the condition that the emissions of a Party exceed its assigned amount. Provisions of decision 14/CP.7 include the requirements to use renewable energy, resulting in a reduction in greenhouse gas (GHG) emissions per unit of production and to use the best available technology to minimize process emissions. As the implementation of all the requirements could be fully assessed only at the end of the commitment period, when the aggregated GHG emissions over the period would be known, during the commitment period Iceland reports both, total GHG emissions and emissions that meet the criteria of this decision.

projection, but were not included in the former projection. Forest management of the cultivated forest is a new sector in the NC6, and the prediction of net removals from the natural birch forest is totally different.

117. Iceland anticipates zero carry-over of credits from the first commitment period. In Iceland's Action Plan, no acquisition of carbon credits through mechanisms is expected in the second commitment period. Iceland will, however, retain an option to use market-based mechanisms to acquire carbon credits during the second commitment period, in line with the rules of relevant EU climate legislation applicable to Iceland.

118. On a gas-by-gas basis, Iceland reported that CO_2 emissions in 2011 were 3,333 kt CO_2 eq. According to the projections, CO_2 emissions will decrease to 3,259 kt CO_2 eq in 2020 and further decrease to 3,241 kt CO_2 eq in 2030 in the 'with measures' scenario. Projected CH_4 emissions also show a decrease, while N_2O, PFC and HFC emissions show an increase and emissions of SF_6 are projected to be stable over the period 2011–2030.

119. In the 'with measures' projection, which takes into account (some of the) measures of the Action Plan, Iceland will increase its GHG emissions by 23.7 per cent by 2020 and by 23.0 per cent by 2030 without the LULUCF sector. Information is presented in terms of GHG emissions avoided or sequestered, by gas (on a CO_2 eq basis), for 1990, 2000, 2010, 2011, 2015, 2020 and 2030.

120. In the 'with measures' projection, CO_2 and CH_4 emissions will show a decreasing trend for the years up to 2015, 2020 and 2030; N_2O emissions will show an increasing trends for the years up to 2015 and 2020 and will then remain stable; PFC and HFC emissions will show an increasing trend for the years up to 2015, 2020 and 2030; and emissions of SF_6 will remain constant for the years up to 2030. The main drivers behind these future trends are the implementation of the Action Plan and the development of economic activities.

121. Emissions from the energy sector emissions will show a decreasing trend for the years up to 2015 and then an increasing trend for the years up to 2020 and 2030. Emissions from transport will show an increasing trend for the years up 2015 and then a decreasing trend for the years up to 2020, 2025 and 2030. Emissions from agriculture and industry, including PFCs, HFCs, SF_6 and solvents, are expected to show an increasing trend for the years up to 2015, 2020 and 2030. Emissions from waste management will show a decreasing trend for the years up to 2015, 2020 and 2030. The emissions from international aviation are expected to increase in 2015, 2020 and 2030; those from international maritime transport are expected to remain relatively stable between 2011 and 2030.

122. The projection indicates that in 2020 Iceland's GHG emissions according to the 'with measures' scenario will be 23.7 per cent above the 1990 level without LULUCF (but including the industry sectors falling under the EU ETS, which includes a fishmeal factory and all three aluminium plants as well as the ferrosilicon plant). The projected emission levels under different scenarios and information on quantified economy-wide emission reduction target are presented in table 5 and the figure.

Table 5
Summary of greenhouse gas emission projections for Iceland

	Greenhouse gas emissions (t CO_2 eq per year)	*Changes in relation to the base year[a] level (%)*	*Changes in relation to the 1990 level (%)*
Kyoto Protocol base year[b]	3 367.97	NA	NA
Kyoto Protocol target for the first commitment period (2008–2012)	3 704.77	10.0	4.7

	Greenhouse gas emissions (kt CO_2 eq per year)	Changes in relation to the base year[a] level (%)	Changes in relation to the 1990 level (%)
Kyoto Protocol target for the second commitment period (2013–2020)[b]	Not available yet	NA	NA
Quantified economy-wide emission reduction target under the Convention[c]	Not available yet	NA	NA
Inventory data 1990[d]	3 538.08	5.0	NA
Inventory data 2012[e]	4 467.73	32.7	26.3
Average annual emissions for 2008–2012[e]	4 671.21	38.7	32.0
'Without measures' projections for 2020[f]	NA	NA	NA
'With measures' projections for 2020[f]	4 338.00	28.8	22.6
'With additional measures' projections for 2020[f]	NA	NA	NA
'Without measures' projections for 2030	NA	NA	NA
'With measures' projections for 2030[f]	4 314.00	28.1	21.9
'With additional measures' projections for 2030	NA	NA	NA

Abbreviation: NA = not applicable.

[a] 'Base year' in this column refers to the base year used for the target under the Kyoto Protocol (1990), while for the target under the Convention it refers to the base year used for that target (1990).

[b] The Kyoto Protocol base year level of emissions is provided in the initial review report contained in document FCCC/IRR/2007/ISL.

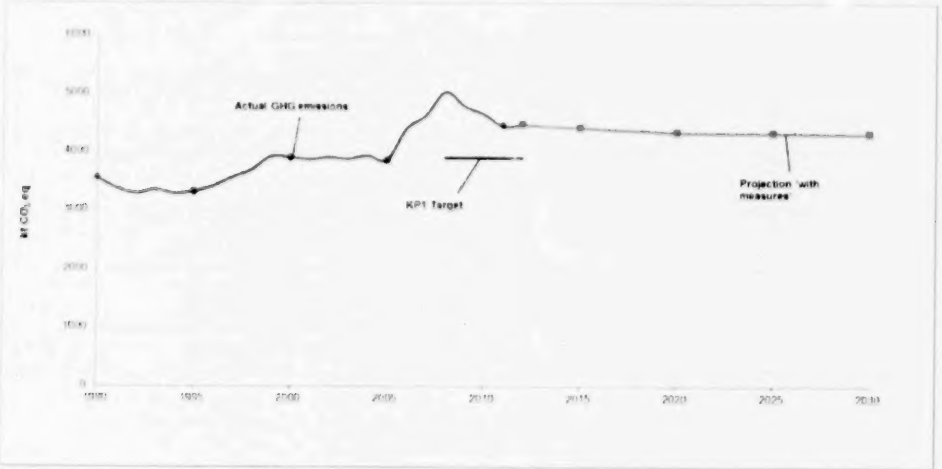
[c] The Kyoto Protocol target for the second commitment period (2013–2020) is a joint target for the European Union and its 28 member States and Iceland. The target is to reduce emissions by 20 per cent by 2020 compared with the base year (1990) level. Iceland's assigned amount for the second commitment period as part of the joint fulfilment with the EU and its member States for the sectors covered under the effort-sharing agreement is estimated to be 15,327.22 kt during the period 2013–2020, or 1,915.90 kt/year on average.

[d] Quantified economy-wide emission reduction target under the Convention is a joint target for the European Union and its 28 member States. The target is to reduce emissions by 20 per cent by 2020 compared with the base year (1990) level.

[e] Iceland's 2014 greenhouse gas inventory submission; the emissions are without land use, land-use change and forestry (LULUCF).

[f] Iceland's sixth national communication and first biennial report.

Greenhouse gas emission projections



Sources: (1) Data for the years 1990–2012: Iceland's 2014 greenhouse gas inventory submission, CRF version 1.1, submitted on 15 April 2014; the emissions are without land use, land-use change and forestry (LULUCF). (2) Data for the years 2012–2030: Iceland's sixth national communication and first biennial report; the emissions are without LULUCF.

Notes: (1) The target for the first commitment period of the Kyoto Protocol (KP1 target) is an increase by 10 per cent compared with the base year (1990) level, without taking into account the provisions of decision 14/CP.7. (2) The 2020 target for Iceland jointly with the European Union is a 20 per cent reduction in emissions compared with the base year level for the sectors outside the European Union Emissions Trading System (for the period 2013–2020, this equates to a total of 15,327.22 kt CO_2 eq).

Abbreviations: GHG = greenhouse gas, KP1 = first commitment period of the Kyoto Protocol.

3. Total effect of policies and measures

123. In its NC6, Iceland does not present the estimated and expected total effect of implemented and adopted PaMs, which are described in the Action Plan. During the review, Iceland provided this information. The ERT recommends that Iceland present information on the total effect of PaMs in its next NC.

124. In its NC6, Iceland partially presents relevant information on factors and activities influencing the projections for each sector for the years 1990–2030. During the review, Iceland provided additional information on its projections until 2020, as provided in the NC5, which amount to 4,644 kt CO_2 eq in scenario 1 and 5,820 kt CO_2 eq in scenario 2 (scenario 2 assumes more industrial activity) and limited additional information concerning the question of which PaMs are included in the projection reported in the NC6.

125. Taking into account some of the measures of the Action Plan (although they have not yet been fully implemented) Iceland also projected that the total GHG emissions will amount to 4,338 kt CO_2 eq in 2020 and 4,313 kt CO_2 eq in 2030. The estimated total effect of PaMs in 2020 is not transparently described; according to the information reported in table 3 of the annex to the NC6, the estimated total effect of PaMs is a reduction of 327.50 kt CO_2 eq in 2020. The most effective PaMs and drivers behind the GHG emission reductions are described in chapter II.B above. Table 6 provides an overview of the effects of implemented and adopted PaMs under the 'with measures' projection.

Table 6
Projected effects of planned, implemented and adopted policies and measures in 2020

Sector	*Effect of implemented and adopted measures (kt CO_2 eq)*	*Relative value (% of 1990 emissions)*	*Effect of planned measures (kt CO_2 eq)*	*Relative value (% of 1990 emissions)*
		2020		
Energy (without transport)	IE	NA	NA	NA
Transport	290	8.2	NA	NA
Industrial processes	37.50 and partially IE	1.1	NA	NA
Agriculture	NE	NA	NA	NA
Land-use, land-use change and forestry	NE	NA	NA	NA
Waste management	NE	NA	NA	NA
Total	**327.50**	**9.30**	**NA**	**NA**

Source: Common tabular format table 3, Iceland's first biennial report and the annex to the sixth national communication.

Notes: (1) The total effect of implemented and adopted policies and measures, defined as the difference between the 'without measures' and 'with measures' scenarios, is not available and, therefore, the table shows the values

provided in table 3 of the annex to the sixth national communication. (2) The carbon tax covers the energy and transport sectors and is included under transport, but is reported as "IE" under the energy sector (without transport). The European Union Emissions Trading System covers the transport and industrial processes sectors and is included under transport, while partially reported as "IE" under the industrial processes sector.

Abbreviations: IE = included elsewhere, NA = not available.

4. Supplementarity relating to the mechanisms pursuant to Articles 6, 12 and 17 of the Kyoto Protocol

126. Iceland did not elaborate on supplementarity under Articles 6, 12 and 17 of the Kyoto Protocol in its NC6. Iceland does not plan to use the market-based mechanisms to meet its Kyoto Protocol target. The ERT noted that Iceland, based on the presented data, seems to be in a position to meet its target for the first commitment period of the Kyoto Protocol with domestic measures only.

127. The ERT recommends that Iceland provide information on how its potential use of mechanisms is supplemental to domestic action in meeting its Kyoto Protocol target in its next NC.

D. Provision of financial resources and technology transfer to developing country Parties, including information under Articles 10 and 11 of the Kyoto Protocol

1. Financial resources, including "new and additional" resources and resources under Article 11 of the Kyoto Protocol

128. In its NC6, Iceland provided information on provision of support required under the Convention and its Kyoto Protocol.

129. The NC6 does not include information required by the UNFCCC reporting guidelines on NCs regarding Iceland's provision of support in 2010. Iceland provides information on the implementation of Article 11 of the Kyoto Protocol; however, there is little information on how Iceland has taken into account the need for adequacy and predictability in the flow of "new and additional" resources.

130. Iceland provides information on its support to those developing countries particularly vulnerable to the adverse effects of climate change; however, more detailed information on the substance of these support programmes is needed to make the support more transparent. During the review, Iceland provided additional information, including documents such as *Uganda – Country Strategy Paper 2011–2014*[10], *Vision and Procedures 2012–2014*[11], *Iceland's Fast Start Finance – Status Report*, and other relevant information. During the review, Iceland also: elaborated on how it regards the reported financial information being related to the needs of developing countries to address climate change, especially for those developing countries particularly vulnerable to the adverse effects of climate change; explained how it seeks to address the needs of developing countries; elaborated on the activities it has undertaken to promote gender-responsive climate change mitigation and adaptation in Uganda in 2011 and 2012; and provided detailed information on its fast-start finance.

131. The ERT recommends that Iceland provide in its next NC information on how it has taken into account the need for adequacy and predictability in the flow of "new and

[10] *The Icelandic International Development Agency*. 2011. Available at <http://www.iceida.is/english/main-activities/uganda>.

[11] *The Icelandic International Development Agency*. 2014. Available at <http://www.iceida.is/english/publications>.

additional" resources, and provide information related to the programmes assisting developing country Parties that are particularly vulnerable to the adverse effects of climate change, to enhance the transparency of its reporting. The ERT also recommends that Iceland provide in its next NC information on financial support for the entire period after the NC6 reporting.

132. In its NC6, Iceland provided details on measures taken to give effect to its commitments under Article 4, paragraphs 3, 4 and 5, of the Convention, as required by the UNFCCC reporting guidelines on NCs and under Article 11 of the Kyoto Protocol, as required by the "Guidelines for the preparation of information required under Article 7 of the Kyoto Protocol." Iceland has indicated what "new and additional" financial resources it has provided pursuant to Article 4, paragraph 3, of the Convention and clarified how it has determined such resources as being "new and additional." In determining "new and additional" financial resources, Iceland takes into account the annual increment of official development assistance (ODA) and the growing share of climate-related ODA in total ODA. In this regard, Iceland contributed approximately USD 2.4 million in "new and additional" support in 2012, which was 34 per cent more than in 2011. Table 7 summarizes information on financial resources.

Table 7
Summary of information on financial resources for 2009–2012
(Thousands of United States dollars)

	Years of disbursement			
Allocation channel of public financial support	*2009*	*2010*	*2011*	*2012*
Official development assistance[a]	34 400	28 400	25 560	26 120
Fast-start finance	NA	NA	350	650
Climate-specific contributions through multilateral channels, including	IE	IE	5 623	6 672
Climate-specific contributions through bilateral, regional and other channels	IE	IE	1 640	3 042

Note: According to the NC6, there is no funding to the Adaptation Fund from Iceland during the reported years, and Iceland is not a member of the Global Environment Facility and has therefore not made any financial contributions to the organization.

Abbreviations: IE = included elsewhere (in this case included in the total), NA = not applicable.

[a] Information taken from document FCCC/IDR.5/ISL and the methodology used for the estimation is different for the years 2009 and 2010.

133. Iceland has reported information on the assistance it has provided to developing country Parties that are particularly vulnerable to the adverse effects of climate change to help them to meet the costs of adaptation to those adverse effects. Iceland has reported that it prioritized support for Afghanistan, Malawi, Mozambique, Uganda and the State of Palestine. All, except the State of Palestine, are least developed countries, and climate change is a cross-cutting issue in all of them. Furthermore, Iceland has provided information on other financial resources related to the implementation of the Convention provided through bilateral, regional and other multilateral channels.

134. With regard to the most recent financial contributions, Iceland committed USD 1 million to fast-start finance to be disbursed in 2011 and 2012. Iceland's fast-start finance was appropriately balanced between adaptation, mitigation and capacity-building, giving special attention to women's empowerment. The United Nations University Land Restoration Training Programme and projects are also supported by Iceland's fast-start finance commitments. During the review, Iceland provided supplementary information

which shows the achievement of its commitment of USD 1 million in support for 2011 and 2012.

135. Iceland provided USD 5,623 thousand and USD 6,672 thousand for support through multilateral channels in 2011 and 2012, respectively, which shows a 19 per cent increase in 2012. This comprises around 37 per cent for adaptation activities in developing countries, while the rest is cross-cutting. There is no specific support for mitigation according to the reported information; however, the support provided includes, for example, a project on enhancement of the utilization of geothermal energy, which does have a mitigation effect. Around 70 per cent of these contributions were provided through special United Nations bodies; around 25 per cent went through multilateral financial institutions, including regional development banks; and the rest went through multilateral climate change funds.

136. Iceland provided USD 1,640 thousand and USD 3,042 thousand in support through bilateral channels in 2011 and 2012, respectively, which shows an 85 per cent increase in 2012. In 2011, around 48 per cent of the total went to adaptation activities in developing countries, 42 per cent to mitigation and the rest was cross-cutting. In 2012, 72 per cent went to adaptation, 24 per cent to mitigation and 4 per cent was cross-cutting. More than 90 per cent of these contributions were delivered to Malawi, Mozambique, Nicaragua and Uganda.

137. In 2012, Iceland began the process of implementing the OECD Development Assistance Committee (DAC) statistical reporting methods, including the use of the Rio markers. Figures relate to projects and programmes marked with the DAC Rio markers, indicating that a major element of the activity is targeting the objectives of the Rio Conventions. The activities marked with the Rio markers are assessed to be assistance to the implementation of the Convention, directly and/or indirectly.

2. Technology transfer, including information under Article 10 of the Kyoto Protocol

138. Iceland has provided in its NC6 comprehensive and well-organized information on activities related to the transfer of technology and notable activities by the public sector. It has also provided information about technology transfer support to developing countries with cooperation from the private sector. A detailed review of the reported information is provided in chapter II.D.3 of the report of the technical review of the first biennial report (FCCC/IDR/BR1).

139. The NC6 does not include information required by the UNFCCC reporting guidelines on NCs regarding steps taken to support the development and enhancement of endogenous capacities and technologies of developing countries. During the review, Iceland elaborated on such support, especially through the United Nations University training programmes. The ERT recommends that Iceland provide information on the steps taken to support the development and enhancement of endogenous capacities and technologies of developing countries in its next NC.

140. Iceland also reported activities related to technology transfer, including success stories, and its activities for financing access by developing countries to 'hard' (e.g. geothermal projects) and 'soft' (e.g. training in geothermal technology and efficient fishery) environmentally sound technologies. Furthermore, Iceland has reported in textual format on the steps taken to promote, facilitate and finance the transfer of technology. There is a particular focus on renewable energy, including geothermal technology, in Iceland's development cooperation. The United Nations University Geothermal Training Programme has for many years played an important role in that regard.

141. An example of a success story on technology transfer provided by Iceland is a geothermal project in Nicaragua called Geothermal Capacity Building Project Nicaragua (GCBP) with total funding of USD 3.583 million. The project operated from 2008 to 2012, building up know-how within the public sector on how to develop geothermal resources

within Nicaragua, and endowing the geochemical laboratory at the Ministry of Energy and Mines with technical resources, infrastructure and equipment.

142. During the review, Iceland also elaborated on climate support from the private sector, for example in the case of a geothermal development initiative in East Africa. However, this information is limited in the NC6. Iceland may wish to enhance the reporting of information, where feasible, by explaining in what way it has encouraged private sector activities, and how these activities help to meet the commitments of Parties under Article 4, paragraphs 3, 4 and 5, of the Convention.

E. Vulnerability assessment, climate change impacts and adaptation measures

143. In its NC6, Iceland has provided extensive information on the expected impacts of climate change in the country. However, the ERT noted that, although adaptation appears as one of the five principal objectives under the 2007 Climate Change Strategy, the NC6 does not contain information on vulnerability assessments and adaptation options, or an outline of the action taken to implement Article 4, paragraph 1(b) and (e), of the Convention with regard to adaptation. The NC6 does, however, include information on mitigation options, such as revegetation of eroded areas and land reclamation activities, which have components that can be reported as adaptation options. These options were further elaborated upon during the review. Moreover, the Icelandic Meteorological Office has ample experience in natural hazard risk assessment.

144. The effects of climate change in Iceland are well documented. Iceland has experienced a warming rate of 0.35 °C per decade – considerably higher than the globally averaged warming trend (0.2 °C), even though the long-term warming trend is similar. Rapid ocean acidification has been observed in the Iceland Sea at 68 °N, as well as marked changes in the distribution of many fish species. All non-surging glaciers are retreating, highland permafrost string bogs are expected to disappear with further warming, and there is an enhanced risk of landslides from slopes where permafrost thaws. Significant impacts are expected in the energy (hydropower) and transport sectors, as well as in agriculture and forestry. The ERT commends Iceland for its efforts at understanding the impacts of climate change, in particular given the worldwide relevance of research on glaciated areas and marine ecosystems taking place in Iceland. Table 8 summarizes the information on vulnerability and adaptation to climate change presented in the NC6.

145. During the review, Iceland provided further information and elaborated on projected impacts, mainly in the natural system. Using the scenarios and models of the IPCC as well as long-term studies, Iceland has determined that while in some respects the impact of increasing temperature is likely to be positive (such as increased growing seasons and plant production and a decreased incidence of frost), these positive impacts are accompanied by certain risks (in the case of increased forest growth rate, a concomitant increase in the number and vigour of pests, for example). Moreover, major run-off changes resulting from the rapid retreat of glaciers have practical implications for the design and operation of hydroelectric power plants and may affect roads and communication lines.

146. In spite of the lack of reference to adaptation in Iceland, the NC6 contains information on Iceland's support and cooperation with Parties not included in Annex I to the Convention (non-Annex I Parties) in preparing for adaptation and enhancing resilience. These cover areas such as soils and ecosystems, land reclamation, sustainable fisheries, as well as gender and climate change (see para. 130 above).

Table 8
Summary of information on vulnerability and adaptation to climate change

Vulnerable area	*Examples comments adaptation measures reported*
Agriculture and food security	*Vulnerability*: increased temperatures since 2000 have improved yields and made it possible to greatly expand barley production and introduce new crops such as rapeseed and winter wheat. Animal husbandry has also benefited from fodder increase. Concern was, however, expressed about the pressure being placed on new areas, which have not been traditionally used for agriculture
	Adaptation: NA
Biodiversity and natural ecosystems	*Vulnerability*: higher temperatures are expected to bring new pests and diseases and result in the introduction of new invasive species that compete with indigenous species; this is the case both in land and in the sea. Highland permafrost string bogs might disappear with further warming; these permafrost string bogs hold much soil organic matter and the thawing of these soils could therefore result in more GHG emissions
	Adaptation: studies are ongoing
Coastal zones	*Vulnerability*: uplift from glacier melt may reduce to some extent the impact of rising sea levels, but not everywhere. Downtown Reykjavik is expected to be vulnerable to flooding
	Adaptation: studies have been conducted on the impact of sea level rise in downtown Reykjavik, but adaptation options are yet to be explored
Marine ecosystems and fisheries	*Vulnerability*: the carrying capacity of the Icelandic marine ecosystem could be enhanced as a result of warmer temperatures, given improved survival of larvae and juveniles of most species. This is expected to contribute to an increased abundance of commercial stock. However, some species have been observed to be in decline. Moreover, the biological effects and ecosystem consequences of the carbonate chemistry changes in oceans are uncertain and of concern
	Adaptation: studies are ongoing
Forests	*Vulnerability*: warmer temperatures are likely to result in longer growing seasons and increased coverage of natural and managed forest. However, warmer temperatures can also cause an early start in the growth cycle and increase vulnerability to new pests and diseases. Instances of downy birch defoliated by alien insects have already been observed
	Adaptation: studies are ongoing
Infrastructure and economy	*Vulnerability*: melting glaciers, increasing surface water and greater precipitation is expected to increase the frequency of river and coastal flooding and erosion. The capacity of existing infrastructure of drainage, roads and bridges might need to be modified to accommodate a greater capacity and changes in the hydrological system
	Adaptation: some studies exist but adaptation options have yet to be explored
Water resources	*Vulnerability*: the increase in surface water from melting glaciers and glacier run-off are expected to affect fluvial erosion and lead to changes in the courses of glacial rivers; this is also expected to affect the design and operation of hydroelectric power plants
	Adaptation: studies are ongoing

Abbreviation: NA = not applicable.

147. To enhance the completeness of the reporting, the ERT recommends that in the next NC Iceland include an outline of the action taken to implement Article 4, paragraph 1(b) and (e), of the Convention with regard to adaptation, and encourages Iceland to provide information on more specific vulnerability assessments for key sectors, areas or species.

F. Research and systematic observation

148. Iceland has provided extensive information on its actions relating to research and systematic observation, addressing both domestic and international activities, including an overview of current research projects. During the review, the ERT learned more about Iceland's participation in the World Climate Programme, the International Geosphere–Biosphere Programme, the Global Climate Observing System (GCOS) and the IPCC. The ERT noted that there is clearly a strong infrastructure and a history of important work, mainly focused on the ocean and the hydrological systems. The ERT commends Iceland for the work undertaken in these areas, whose significance goes well beyond national borders.

149. The NC6 reflects actions taken to support related capacity-building in developing countries, including through Iceland's United Nations University training programmes on geothermal technologies and land restoration. During the review, the ERT learned of Iceland's collaboration with India on glacier sensitivity to climate change. Field data from glaciated regions in the world are scarce due to their remote locations and difficult and expensive logistics, whereas Iceland's glaciers are among the world's best monitored glaciers. In addition to the importance of the field data for evaluating local hydrological impacts in Iceland, the results of monitoring and research of Icelandic glaciers are valuable within the global context.

150. The NC6 also contains information on research projects on mitigation options and technology, such as the Iceland Deep Drilling Project, which could potentially have a significant impact on the exploitation of geothermal energy worldwide. During the review, Iceland also elaborated on the CarbFix experimental project on the storage of mineralized CO_2 in basaltic rocks in Icelandic geothermal fields. The aim of the CarbFix project is to study the feasibility of sequestering CO_2 into basaltic bedrock and storing it there permanently as a mineral. Depending on the results, this technique might be replicable by other Parties since basaltic bedrocks susceptive of CO_2 injections are widely found on the planet.

151. The NC6 does not include information required by the UNFCCC reporting guidelines on NCs regarding the general policy on funding for research and systematic observation. Reference to opportunities for, and barriers to, free and open international exchange of data and information, and on support for developing countries to establish and maintain observing systems and related data and monitoring systems, is also missing from the NC6.

152. During the review, the ERT learned of cutbacks to monitoring activities, particularly in ocean climate observations. Given the fast rate of changes observed and Iceland's unique position to conduct critical research, the ERT noted with concern these cutbacks in scientific research.

153. The ERT encourages Iceland to address in its next NC its general policy on and funding for research and systematic observation, as well as support for developing countries to establish and maintain observing systems and related data and monitoring systems.

G. Education, training and public awareness

154. In the NC6, Iceland has provided information on its actions relating to education, training and public awareness. Sustainability has been defined as a pillar in the national curriculum guides as a result of the adoption of the national curriculum guide for education in 2011 (sustainability is one of the six key priorities identified in the curriculum), and the Eco-Schools programme has continued to grow with government support. The ERT commends Iceland for its efforts at integrating climate change education at all levels and enhancing access to climate change related information.

155. During the review, Iceland provided additional information, elaborating on its efforts at raising public awareness. Various means of providing information have been used by the government, with a focus on social media. Given that over 70 per cent of Icelanders have a Facebook account, the Ministry for the Environment and Natural Resources, EA, the Icelandic Meteorological Office and other government agencies have also set up Facebook pages to disseminate information. A number of public awareness campaigns – such as the "Bike to work" and "Bike to school" campaigns, and a "Deviation-free" incentive scheme for industries – are reported to have had an unexpected and significant rate of success.

156. To advance dialogue and consultation with environmental NGOs, the Icelandic Government created a cooperation platform. All 19 environmental NGOs are reported to participate in the platform.

157. Iceland continues its support for the United Nations University's programmes aimed at training and capacity-building in developing countries, with priority placed on geothermal energy, land restoration, gender equality and sustainable fisheries.

III. Summary of reviewed supplementary information under the Kyoto Protocol

A. Overview of supplementary information under Article 7, paragraph 2, of the Kyoto Protocol

158. Supplementary information provided by Iceland in response to Article 7, paragraph 2, of the Kyoto Protocol is mostly complete and transparent. The supplementary information is located in different sections of the NC6. Table 9 provides an overview of this supplementary information, as well as references to the NC6 chapters in which the information is provided.

159. Iceland has not reported the following elements of the supplementary information required under Article 7, paragraph 2, of the Kyoto Protocol: supplementarity relating to the mechanisms pursuant to Articles 6, 12 and 17 of the Kyoto Protocol; and identification of steps taken to promote and/or implement any decisions by ICAO and IMO in order to limit or to reduce GHG emissions not included in the Montreal Protocol from aviation and marine bunker fuels. In addition, there is little information on how Iceland has taken into account the need for adequacy and predictability in the flow of "new and additional" resources. The technical assessment of the information reported under Article 7, paragraph 2, of the Kyoto Protocol is contained in the relevant sections of this report. The ERT recommends that Iceland include these reporting elements in its next NC.

Table 9
Overview of supplementary information under Article 7, paragraph 2, of the Kyoto Protocol

Supplementary information	*Reference to the sixth national communication*
National registry	NC6, chapter 3.2.9
National system	NC6, chapter 3.2
Supplementarity relating to the mechanisms pursuant to Articles 6, 12 and 17	Not included in the NC6
Policies and measures in accordance with Article 2	NC6, chapter 4.3
Domestic and regional programmes and/or legislative arrangements and enforcement and administrative procedures	NC6, chapter 4.1
Information under Article 10	NC6, chapters 3.2, 4.2.6, 7.5, 7.3.9, 8
Financial resources	NC6, chapter 7

B. Minimization of adverse impacts in accordance with Article 3, paragraph 14, of the Kyoto Protocol

160. Iceland reported the information requested in section H, "Minimization of adverse impacts in accordance with Article 3, paragraph 14", of the annex to decision 15/CMP.1 as a part of its 2014 annual submission. During the review, Iceland provided the ERT with the additional information on how it strives to implement its commitments under Article 3, paragraph 1, of the Kyoto Protocol in such a way as to minimize adverse social, environmental and economic impacts on developing country Parties, particularly those identified in Article 4, paragraphs 8 and 9, of the Convention. The ERT considers the reported information to be complete and transparent. The ERT commends Iceland for the additional information provided, and notes that in its next NC Iceland could also cross-reference this information with further information provided in its NIR.

161. The 2014 and previous NIRs and the additional information provided during the review presented several initiatives of Iceland aimed at minimizing adverse impacts, including cooperating in the further development of geothermal technologies and supporting developing countries in the area of sustainable utilization of natural resources through Iceland's administration of the United Nations University Geothermal Training Programme, as well as conducting research on sequestration of CO_2 in the form of carbonate minerals in basaltic bedrocks (see para. 150 above).

IV. Conclusions and recommendations

162. The ERT conducted a technical review of the information reported in the NC6 of Iceland according to the UNFCCC reporting guidelines on NCs. The ERT concludes that the NC6 provides a good overview of the national climate policy of Iceland. The information provided in the NC6 includes most elements of the supplementary information under Article 7 of the Kyoto Protocol, with the exception of information on: supplementarity relating to the mechanisms pursuant to Articles 6, 12 and 17 of the Kyoto Protocol; PaMs in accordance with Article 2 of the Kyoto Protocol; and information on how it has taken into account the need for adequacy and predictability in the flow of "new and additional" financial resources. During the review, Iceland provided sufficient information on these missing elements as well as additional information, particularly on PaMs, projections and financial support.

163. Iceland's emissions for 2012 were estimated to be 26.3 per cent above its 1990 level excluding LULUCF and 9.8 per cent above including LULUCF. Emission increases were driven by strong economic growth, population growth and an increase in production capacity of the non-ferrous industries. These factors outweighed improvements made in increasing the share of renewable energy from hydropower and geothermal.

164. In the NC6, Iceland presents GHG projections for the period from 1990 to 2030. The projected GHG emissions without LULUCF for 2020 under the 'with measures' projection are 28.8 per cent above the 1990 level. Based on the comparison of the target and the average annual emissions for the first commitment period (2008–2012), and taking into account the provisions of decision 14/CP.7 on the impacts of single projects on emissions, Iceland is in a position to meet its Kyoto Protocol target for the first commitment period (10.0 per cent emission reduction). Iceland sets a target within the EU to not exceed the GHG emission level of 15,327.22 kt CO_2 eq from 2013 to 2020 in the second commitment period for the sectors not included under the EU ETS.

165. Iceland did not elaborate on supplementarity under Articles 6, 12 and 17 of the Kyoto Protocol in its NC6. Iceland does not plan to use the market-based mechanisms to meet its Kyoto Protocol target and seems on track to meet its target for the first commitment period of the Kyoto Protocol with domestic measures only.

166. The Icelandic Government adopted a Climate Change Strategy in 2007. This strategy is conceived as a framework for government action and involvement in climate change issues, setting forth a long-term target of reducing net emissions of GHGs by 50–75 per cent by 2050 compared with 1990 levels. Five principal objectives underpin this strategy: (1) the fulfilment of international obligations under the Convention and its Kyoto Protocol; (2) the reduction of GHG emissions, with a special emphasis on reducing the use of fossil fuels in favour of renewable energy and climate-friendly fuels; (3) increasing carbon sequestration from the atmosphere through afforestation, revegetation, wetland reclamation, and changed land use; (4) fostering research and innovation in fields related to climate change affairs and promoting the export of Icelandic expertise in fields related to renewable energy and climate-friendly technologies; and (5) preparation for adaptation to climate change.

167. A Climate Change Action Plan was endorsed by the Icelandic Government in 2010 based on the 2007 Climate Change Strategy. This Action Plan is the key framework put in place by the Government to define and implement actions to reduce GHG emissions and enhance carbon sequestration in Iceland. The Action Plan covers economy-wide measures, and is underpinned by 10 key actions.

168. Iceland is a member of the EEA under the EEA Agreement, and as such has been part of the EU ETS since 2012. The EU ETS covered approximately 40 per cent of emissions from Iceland in 2011. Additionally, under the EEA Agreement, EU climate policy has been transposed into Icelandic legislation in several sectors of the economy, such as in the energy, industrial processes and waste sectors.

169. Iceland provided information on its provision of financial resources, technology transfer and capacity-building to developing country Parties according to the requirements under the Convention, as well as information under Articles 10 and 11 of the Kyoto Protocol. Due to a methodological change, it is difficult to compare the financial support before and after 2010; however, the amount of financial support in 2012, which is USD 9.7 million, increased significantly relative to 2011, and in 2012 the "new and additional" support amounted to USD 2.4 million. Afghanistan, Malawi, Mozambique, Uganda and the State of Palestine were prioritized for support; climate change is a cross-cutting issue in all of them. The main focus of technology transfer activities by Iceland is related to technologies in the renewable energy and fisheries sectors. Gender equity in climate

change, adaptation in priority countries and training programmes with the United Nations University are the main focus of capacity-building support by Iceland.

170. Extensive and significant work has been undertaken by Iceland on climate change impacts. These impacts are often rapid and clear, and include widespread glacier retreat and changes in ocean acidification and temperature. Iceland has also undertaken general vulnerability assessments. The analysis of adaptation options is planned in Iceland's Climate Change Strategy adopted in 2007, but a plan is yet to be developed to address this issue. Iceland does, however, provide support for adaptation and enhancing resilience in non-Annex I countries.

171. Iceland is actively involved in international research activities through cooperation with overseas universities and engaging in GCOS activities. There is significant and widespread work on climate monitoring activities of critical importance to understand impacts, not only in Iceland but well beyond, in particular on ocean acidification and temperature and glacier retreat.

172. Sustainability has become an integral feature of education in Iceland as a result of the adoption of the national curriculum guide for education in 2011. There is a clear effort by the government to increase the availability of information and raise awareness, including through social media, and there have been numerous public campaigns, particularly focused on education and transport. A cooperation platform for increasing consultation and dialogue includes all 19 environmental NGOs in Iceland. Iceland also continues to run four training programmes under the United Nations University, three of which directly address mitigation and adaptation to climate change.

173. Supplementary information under Article 7, paragraph 1, of the Kyoto Protocol on the minimization of adverse impacts in accordance with Article 3, paragraph 14, of the Kyoto Protocol is provided by Iceland in its 2014 annual submissions.

174. In the course of the review, the ERT formulated several recommendations relating to the completeness and transparency of Iceland's reporting under the Convention and its Kyoto Protocol. The key recommendations[12] are that Iceland:

(a) Improve the completeness of its reporting by including in the next NC the following information:

(i) The process for the recalculation of previously submitted inventory data;

(ii) Information on the steps it has taken to promote and/or implement any decisions by ICAO and IMO;

(iii) A projection for the LULUCF sector;

(iv) Information on the total effect of PaMs;

(v) Information on how its potential use of flexible mechanisms under the Kyoto Protocol is supplemental to domestic action;

(vi) Information on financial support for the entire period after the NC6 reporting, longer than the two latest reporting years;

(vii) Information on the steps taken to support the development and enhancement of endogenous capacities and technologies of developing countries;

(viii) Information on actions taken to implement Article 4, paragraph 1(b) and (e), of the Convention with regard to adaptation;

[12] The recommendations are given in full in the relevant sections of this report.

(b) Improve the transparency of its reporting by including in the next NC the following information:

(i) A textual description of the principal PaMs;

(ii) Information on how the PaMs are modifying longer-term trends in anthropogenic GHG emissions and removals;

(iii) Clarifying which PaMs were taken into account in the 'with measures' projection and elaborating on the effects of these PaMs;

(iv) Information on how it has taken into account the need for adequacy and predictability in the flow of "new and additional" resources;

(v) Information on how it strives to implement PaMs under Article 2 of the Kyoto Protocol in such a way as to minimize adverse effects, including the adverse effects of climate change and effects on international trade and social, environmental and economic impacts, on other Parties, especially developing country Parties;

(vi) More detailed information related to the programmes assisting developing country Parties that are particularly vulnerable to the adverse effects of climate change.

175. The ERT also recommends that Iceland improve the accuracy of its reporting to avoid inconsistencies and errors by, for example, enhancing the quality assurance of the reports.

176. The ERT further recommends that Iceland improve the timeliness of submission of NCs and submit its seventh NC by 1 January 2018.

V. Questions of implementation

177. During the review, the ERT assessed the NC6, with regard to timeliness, completeness, transparency and adherence to the UNFCCC reporting guidelines on NCs. No question of implementation was raised by the ERT during the review.

Annex

Documents and information used during the review

A. Reference documents

"Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part II: UNFCCC reporting guidelines on national communications". FCCC/CP/1999/7. Available at <http://unfccc.int/resource/docs/cop5/07.pdf>.

"Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part I: UNFCCC reporting guidelines on annual inventories". FCCC/CP/1999/7. Available at <http://unfccc.int/resource/docs/cop5/07.pdf>.

"Guidelines for the preparation of the information required under Article 7 of the Kyoto Protocol". Decision 15/CMP.1. Available at <http://unfccc.int/resource/docs/2005/cmp1/eng/08a02.pdf#page=54>.

"Guidelines for review under Article 8 of the Kyoto Protocol". Decision 22/CMP.1. Available at <http://unfccc.int/resource/docs/2005/cmp1/eng/08a03.pdf#page=51>.

"Guidelines for the technical review of information reported under the Convention related to greenhouse gas inventories, biennial reports and national communications by Parties included in Annex I to the Convention". Annex to decision 23/CP.19. Available at <http://unfccc.int/resource/docs/2013/cop19/eng/10a02.pdf#page=20>.

FCCC/SBI/2011/INF.1. Compilation and synthesis of fifth national communications. Executive summary. Note by the secretariat. Available at <http://unfccc.int/resource/docs/2011/sbi/eng/inf01.pdf>.

FCCC/SBI/2011/INF.1/Add.1. Compilation and synthesis of fifth national communications. Note by the secretariat. Addendum. Policies, measures, and past and projected future greenhouse gas emission trends of Parties included in Annex I to the Convention. Available at <http://unfccc.int/resource/docs/2011/sbi/eng/inf01a01.pdf>.

FCCC/SBI/2011/INF.1/Add.2. Compilation and synthesis of fifth national communications. Note by the secretariat. Addendum. Financial resources, technology transfer, vulnerability, adaptation and other issues relating to the implementation of the Convention by Parties included in Annex I to the Convention. Available at <http://unfccc.int/resource/docs/2011/sbi/eng/inf01a02.pdf>.

FCCC/SBI/2011/INF.2. Compilation and synthesis of supplementary information incorporated in fifth national communications submitted in accordance with Article 7, paragraph 2, of the Kyoto Protocol. Note by the secretariat. Available at <http://unfccc.int/resource/docs/2011/sbi/eng/inf02.pdf>.

FCCC/ARR/2013/ISL. Report of the individual review of the annual submission of Iceland submitted in 2013. Available at <http://unfccc.int/resource/docs/2014/arr/isl.pdf>.

FCCC/IRR/2007/ISL. Report of the review of the initial report of Iceland. Available at <http://unfccc.int/resource/docs/2007/irr/isl.pdf>.

FCCC/IDR.5/ISL. Report of the in-depth review of the fifth national communication of Iceland. Available at <http://unfccc.int/resource/docs/2011/idr/isl05.pdf>.

Sixth national communication of Iceland. Available at <http://unfccc.int/files/national_reports/annex_i_natcom/submitted_natcom/application/pdf/nc6_br1_isl.pdf>.

2013 GHG inventory submission of Iceland. Available at <http://unfccc.int/national_reports/annex_i_ghg_inventories/national_inventories_submissions/items/7383.php>.

2014 GHG inventory submission of Iceland. Available at <http://unfccc.int/national_reports/annex_i_ghg_inventories/national_inventories_submissions/items/8108.php>.

B. Additional information provided by the Party

Responses to questions during the review were received from Mr. Hugi Ólafsson and Mr. Stefan Einarsson (Ministry for the Environment and Natural Resources, Department of Oceans, Water and Climate), including additional material on updated policies and measures, greenhouse gas projections, provision of support to developing countries and recent climate policy developments in Iceland.